

**REMARKS**

This patent application presently includes claims 1-17, of which claims 1-4 are rejected and claims 5-17 have been withdrawn from further consideration as based upon a non-elected invention. A typographical error is corrected in the description, the claims are amended to improve their language, and all rejections are respectfully traversed.

A typographical error has been corrected at page 11, line 11. Specifically, the left side of equation (6) was missing. The context of the text confirms that this correction is needed.

Claims 1-4 are rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. The Examiner asserted that the claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the times the application was filed, had possession of the claimed invention. This rejection is respectfully traversed.

The Examiner's characterization of the claimed invention as at the top of page 3 of the Office Action is incorrect. In fact, the subject matter of claim 1 is described in the top half of page 15 of the present application. Those skilled in the art would appreciate the correspondence between claim 1 and what is described at page 15 of the application.

This rejection is improper and should be withdrawn.

Claims 1-4 were rejected under 35 U.S.C. § 112 as indefinite. The Examiner objected to specific language in the claims.

For example, "a large number of genomic samples" in claim 1 was found to be objectionable, presumably because of the use of descriptive term "large." The applicants disagree with this rejection. However, in order to avoid the issue and advance prosecution, claim 1 has been amended to delete the terms "large" and "small." Instead of "large", the claim refers to a "first" number. Also, the term "small" has been deleted to the extent that it refers to the number of





Applicants' attorney has made every effort to place this patent application in condition for allowance and to demonstrate that it is in fact in such condition. It is therefore earnestly requested that this application, as a whole, receive favorable reconsideration and that all of the claims be allowed as presently constituted. Should there remain any unanswered questions, the Examiner is requested to call the applicants' undersigned attorney at the telephone number indicated below.

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Respectfully submitted,

By

  
Joseph B. Lerch

Registration No.: 26,936

DARBY & DARBY P.C.

P.O. Box 5257

New York, New York 10150-5257

(212) 527-7700

(212) 753-6237 (Fax)

Attorneys/Agents For Applicants

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## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<b>(51) International Patent Classification <sup>6</sup> :</b> <b>G01N 33/00, C12Q 1/68</b>	<b>A1</b>	<b>(11) International Publication Number:</b> <b>WO 99/54724</b> <b>(43) International Publication Date:</b> 28 October 1999 (28.10.99)
<b>(21) International Application Number:</b> PCT/IB99/00734 <b>(22) International Filing Date:</b> 22 April 1999 (22.04.99)  <b>(30) Priority Data:</b> 60/082,692 22 April 1998 (22.04.98) US  <b>(71) Applicant (for all designated States except US):</b> IMAGING RE-SEARCH INC. [CA/CA]; Brock University, 500 Glenridge Avenue, St. Catharines, Ontario L2S 3A1 (CA).  <b>(72) Inventors; and</b> <b>(75) Inventors/Applicants (for US only):</b> RAMM, Peter [CA/CA]; 290 Riverview Boulevard, St. Catharines, Ontario L2T 3N4 (CA). NADON, Robert [CA/CA]; 35 South Drive, St. Catharines, Ontario L2R 4T9 (CA).		<b>(81) Designated States:</b> AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).  <b>Published</b> <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>
<b>(54) Title:</b> PROCESS FOR EVALUATING CHEMICAL AND BIOLOGICAL ASSAYS  <b>(57) Abstract</b>  An analytical process is disclosed, for discriminating data acquired from samples with overlapping distributions, and for improving and assessing the statistical validity of hybridization signal in arrays of assays. The process includes method of convolving data into two or more discrete probability density functions representing signal and nonsignal, discrete fluors, or other convolved independent variables. The system uses the probability density functions to assign hybridization signals, objectively, to one of the modeled distributions. Subsequent processes assess variability inherent to the arrays, and use this assessed variation to establish reliability scores and confidence limits for complete hybridization arrays, and for discrete hybridization assays within arrays.		